

Work Order ID 126952

Tuesday, December 02, 2014 2:17:42 PM

126952

PRELIMINARY ISSUE

Page 1

Item ID: D5155-1 POSITIVE RECALL N/A Accept *N1900040100* Setup Start *NS1*
 Revision ID: PRELIM Stop *NS2*
 Item Name: Co-Pilot Collective Head (205)
 Start Date: 12/9/2014 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 12/9/2014 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: MLS Date: 14/12/02 Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D5155	PAS PA8 B <u>14/12/09</u>								
100	Cut blanks as per folio	0.00							DAS 08 9-89
100									
Bandsaw	Memo	0.00							
Jeaspa Bandsaw	CUT BLANK AT 5.500" 5.000"								
110		0.00							DAS 08 9-89
110									
HAAS 5AXIS	Memo	0.00							
HAAS CNC vertical machine #5	MACHINE AS PER DWG & FOLIO FB349/ D5155-1 FOLIO REV: <u>4A</u> DWG REV: <u>PAT</u> B								
	DO NOT BUFF OR POLISH PART								
	DEBURR								

B.A 14/12/09

B.A 14/12/13

B.A 15/01/12

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 126952

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Page 2

Item ID: D5155-1 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: PRELIM Stop ***NS2***
 Item Name: Co-Pilot Collective Head (205)
 Start Date: 12/9/2014 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 12/9/2014 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC2- Inspect parts off machine FAI/FAIB	0.00							DAS 08 9-89
120									
QC	Memo	0.00							
Quality Control									
130	QC8- Inspect parts - second check	0.00							DAS 44 9-89
130									
QC	Memo	0.00							
Quality Control									
140	QC5- Inspect part completeness to step on W/O	0.00							DAS 38 9-89
140									
QC	Memo	0.00							
Quality Control									



POSITIVE RECALL
 EFFECTIVE ML5 AUTH 14-2-02
 RELEASED N/A DATE

CR 5903

OCT 08 2015

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td style="width: 25%;">Skid-tube ☐</td> <td style="width: 25%;">Crosstube ☐</td> <td style="width: 25%;">Water Jet ☐</td> <td style="width: 25%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 126952

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PRELIMINARY ISSUE

Page 3

Item ID: D5155-1

Accept

N19000040100

Setup Start *NS1*

Revision ID: PRELIM

Item Name: Co-Pilot Collective Head (205)

Stop *NS2*

Start Date: 12/9/2014 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 12/9/2014 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Identify as per dwg & Stock Location: <u>57 150</u>	0.00							
160									
Packaging	Memo	0.00							
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.00							
Quality Control									

20151008
24

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
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Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

Page 1

Tuesday, December 09, 2014 1:57:31 PM

Work Order ID: 126952

126952

Parent Item: D5155-1

D5155-1

Parent Item Name: Co-Pilot Collective Head (205)

Start Date: 12/9/2014

Required Date: 12/9/2014

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV.A NEW ISSUE JFS 14/12/01 VERIFIED BY: JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M6061T6B2.750X03.75
0

Purchased

No

100

f

8.6570

0.417

1

M6061T6B2 750X03 750

6061-T6 BAR 2.75 X 3.75

B.a 14/12/09

LocationLoc QtyLoc Code

MAT005

8.657

→ 114854

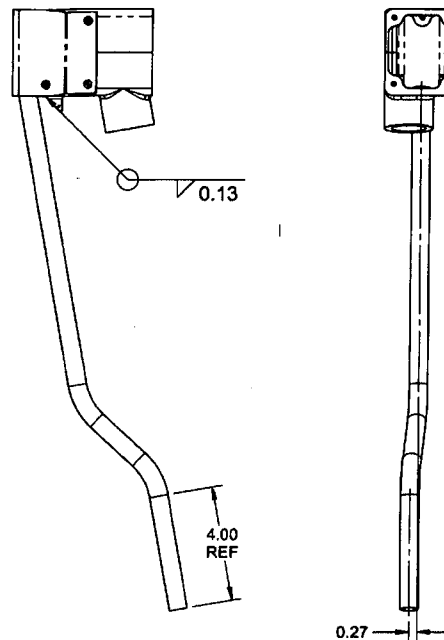
0.657

th m127464

8

0.4210^{ft}

ITEM	QTY	P/N	DESCRIPTION
1	X	D5155-041	CO-PILOT COLLECTIVE HEAD ASSEMBLY (205)
2	1	D4410-7	CONDUIT
3	1	D5155-1	CO-PILOT COLLECTIVE HEAD (205)
4	1	D5155-9	CO-PILOT COLLECTIVE HEAD (205)
5	1	D5156-9	BACK PLATE
6	11	90296A108	HELI-COIL INSERT (6-32 X 0.276)
7	2	MS16562-223	SLOTTED SPRING PIN
8	7	MS24693-24B	SCREW, CSK 100*

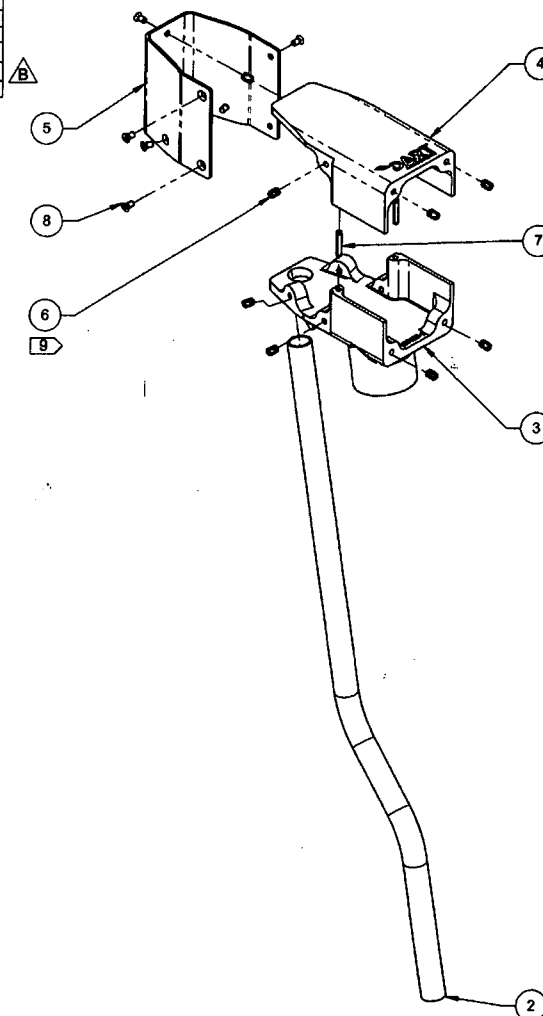


D5155-041 WELDING DETAIL

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: ANODIZE BLACK PER MIL-A-8625F TYPE I OR IB OR IC OR II OR IIB CLASS 2 AFTER WELDING
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 1.08 lbs
- 8) WELD PER DART QSI 004
- 9) INSTALL AFTER ANODIZING

D5155-041 CO-PILOT COLLECTIVE HEAD ASSEMBLY (205)

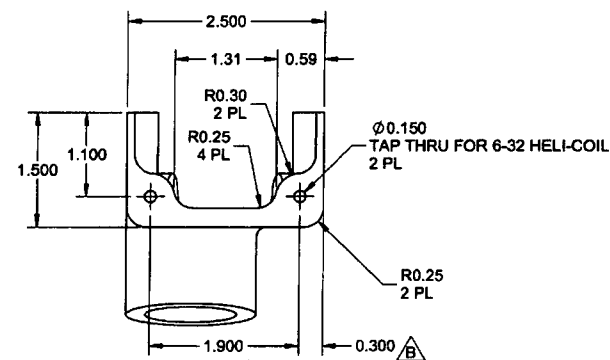
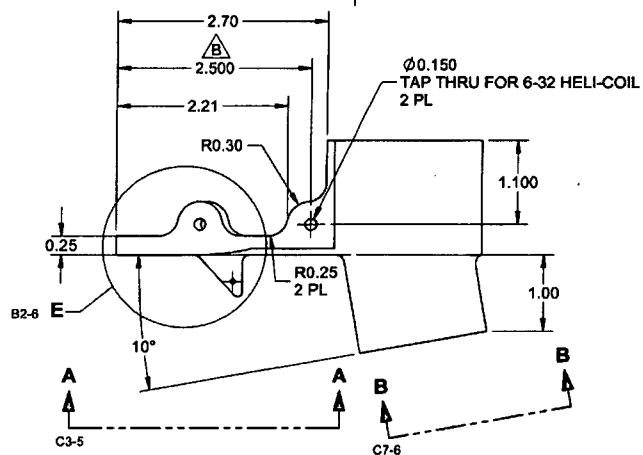
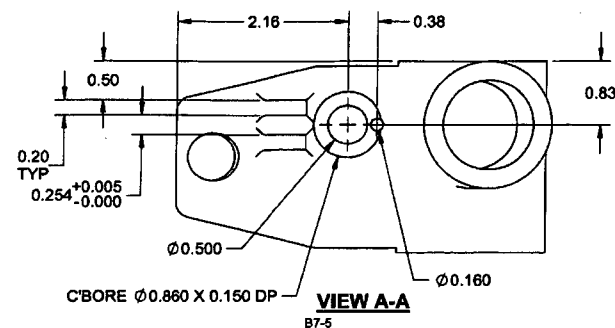
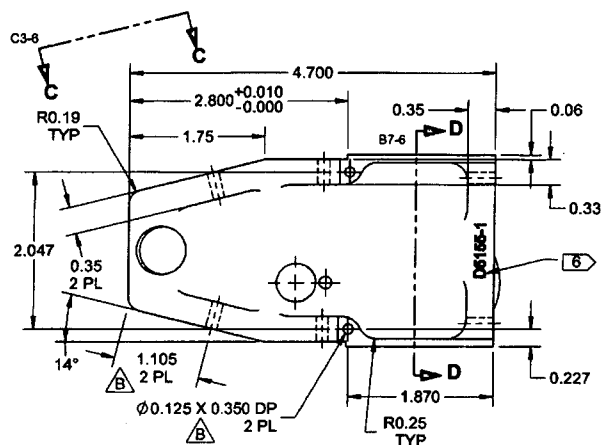


RELEASED

A.P. 2015 JUL 02 Rev 15-577

B	REVISE DIM: ZN D3-7, REVISE NOTE 2; ZN A8-13, A8-14, REVISE LENGTH OF PIN: ZN D6-1, D6-2, D5-3, D6-4, REVISE DEPTH: ZN C7-5, C7-7, C7-9, C7-11, C5-13, C4-14, REVISE DIM: ZN C7-5, C7-7, C7-9, C5-11, B7-13, B7-14, B2-5, B2-7, B2-9, B2-11, C5-13, C4-14, D8-6, D8-8, D8-10, D5-8, D5-10, D5-12, B8-7, D7-12, C7-5, C7-7, C7-9, C6-11, D2-13, D2-14	VS	15.05.21
A	NEW ISSUE	VS	14.09.10
REV.	DESCRIPTION	BY	DATE
DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	JFS	D5155	SHEET 1 OF 14
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	CO-PILOT COLLECTIVE HEAD	NTS
DATE	15.05.21	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

APPROVED



RELEASED
A.P. 2015 JUL 02

NOTES:

- 1) MATERIAL: 6061-T6/T651/T6511/T62 ALUMINUM BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221
REF DART SPEC M6061T6B
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.3 IN THIS AREA TO MAX DEPTH
OF 0.010 WITH A MIN. TOOL RAD OF R0.010
- 7) WEIGHT: 0.47 lbs
- 8) UNDIMENSIONED FEATURES ARE DEFINED BY D5155-1.SLDPR

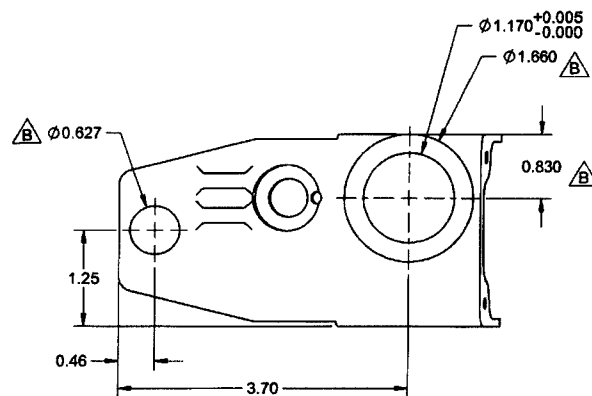
D5155-1 CO-PILOT COLLECTIVE HEAD (205)

APPROVED

DESIGN	VS	#	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS			
CHECKED	RF		DRAWING NO.	REV. 8
MFG. APPR.	JFS		D5155	SHEET 5 OF 14
APPROVED	HS		TITLE	SCALE
DE APPR.	DS		CO-PILOT COLLECTIVE HEAD	
DATE		15.05.21		

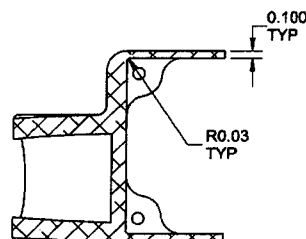
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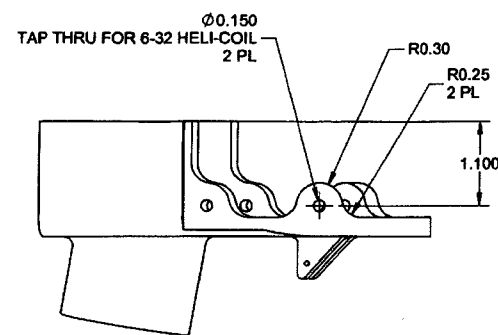
VIEW B-B

B5-5



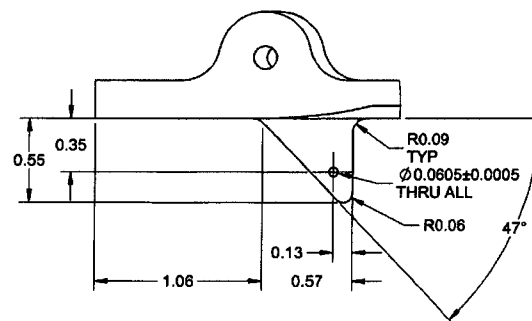
SECTION D-D

D8-5



VIEW C-C

D7-5



DETAIL E

B7-5

RELEASED

0.2 2015 JUL 02

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A

**D5155-1 CO-PILOT COLLECTIVE HEAD (205)
DETAIL VIEWS**

APPROVED	DESIGN	VS	DART AEROSPACE LTD	
	DRAWN	VS	HAWKESBURY, ONTARIO, CANADA	
	CHECKED	RF	DRAWING NO.	REV. B
	MFG. APPR.	JFS	D5155	SHEET 8 OF 14
	APPROVED	HS	TITLE	SCALE
	DE APPR.	DS	CO-PILOT COLLECTIVE HEAD	NTS
	DATE	15.05.21	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

DART AEROSPACE LTD		Work Order:	126952
Description: CO-PILOT COLLECTIVE HEAD (205)		Part Number:	D5155-1
Inspection Dwg: D5155	Rev: B	Page 1 of 2	

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
4.700	+/-0.010	4.697	✓		Vern	GA-13
2.800	+0.010 / -0.000	2.800	✓		H-6	31006
1.75	+/-0.030	1.750	✓		"	"
R0.19	+/-0.030	R0.188	✓		R-6	ref.
2.047	+/-0.005	2.047	✓		Vern	GA-13
0.35	+/-0.030	0.351	✓		"	"
14°	+/- 1/2°	14°	✓		Angle M.	CNC-17
φ0.125 x 0.350	+0.004 / -0.001	φ0.125 x 0.351	✓		Vern	GA-13
R0.25	+/-0.030	R0.250	✓		R-6	ref.
1.870	+/-0.010	1.870	✓		Vern	GA-13
0.227	+/-0.010	0.227	✓		"	"
0.33	+/-0.030	0.322	✓		"	"
0.06	+/-0.030	0.064	✓		"	"
0.35	+/-0.030	0.348	✓		"	"
2.500	+/-0.010	2.501	✓		"	"
2.21	+/-0.030	2.210			"	"
R0.30	+/-0.030	R0.300	✓		R-6	ref.
0.25	+/-0.030	0.248	✓		Vern	GA-13
R0.25	+/-0.030	R0.250	✓		R-6	ref.
1.00	+/-0.030	1.000	✓		Vern	GA-13
1.100	+/-0.010	1.097	✓		"	"
φ0.150	+0.005 / -0.001	φ0.152	✓		"	"
1.500	+/-0.010	1.499	✓		"	"
1.100	+/-0.010	1.100	✓		"	"
2.500	+/-0.010	2.500	✓		"	"
1.31	+/-0.030	1.308	✓		"	"
0.59	+/-0.030	0.590	✓		"	"
R0.25	+/-0.030	R0.250	✓		R-6	ref.
R0.30	+/-0.030	R0.300	✓		"	"
φ0.150	+0.005 / -0.001	φ0.152	✓		Vern	GA-13
0.300	+/-0.010	0.300	✓		"	"
1.900	+/-0.005	1.900	✓		"	"

Measured by: B.A.	DAS 08	Checked by:	DAS 44	QC Inspector:
Date: 15/09/22	9-89	Date:	15/09/22	Date:

Engineering Approval: (If necessary)	Date:
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Rev	Date	Change	Revised by	Approved
B	14.07.31	New Issue	KJ	

DART AEROSPACE LTD		Work Order:	126952
Description: CO-PILOT COLLECTIVE HEAD (205		Part Number:	D5155-1
Inspection Dwg:	Rev:	Page 2 of 2	

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.16	+/- .030	2.160	✓		H-6	31006
0.38	+/- .030	0.376	✓		"	"
φ 0.160	+ .005 / - .001	φ 0.160	✓		"	"
φ 0.500	+ .006 / - .001	φ 0.500	✓		Vern	GA-13
φ 0.860 X .150	+/- .010 / +/- .010	φ 0.860 X .151	✓		"	"
0.254	+ .005 / - 0.000	0.255	✓		"	"
0.20	+/- .030	0.200	✓		"	"
0.50	+/- .030	0.500	✓		"	"
φ 0.627	+ .008 / - .001	φ 0.628	✓		"	"
1.25	+/- .030	1.249	✓		"	"
0.46	+/- .030	0.460	✓		H-6	31006
3.70	+/- .030	3.700	✓		"	"
0.830	+/- .010	0.831	✓		"	"
φ 1.170	+ .005 / - 0.000	φ 1.1715	✓		Mic	GA-02
φ 1.660	+/- .010	φ 1.658	✓		Mic	GA-02
0.100	+/- .010	0.100	✓		"	"
0.55	+/- .030	0.544	✓		Mic	GA-03
0.35	+/- .030	0.350	✓		H-6	31006
1.06	+/- .030	1.063	✓		"	"
0.13	+/- .030	0.125	✓		"	"
0.57	+/- .030	0.570	✓		Vern	GA-13
R0.06	+/- .030	R0.063	✓		R-6	ref.
φ 0.0605	+/- .0005	φ 0.0605	✓		Mic-G-P	GA-03/ref.
R0.09	+/- .030	R0.088	✓		R-6	ref.
3.58	+/- .030	3.580	✓		H-6	31006
R0.30	+/- .030	R0.300	✓		R-6	ref.
R0.25	+/- .030	R0.250	✓		"	"
1.100	+/- .010	1.101	✓		H-6	31006

Measured by: B.A.	DAS 08 9-89	Checked by: 44 9-89	QC Inspector:
Date: 15/09/22		Date: 15/09/22	Date:

Engineering Approval: (If necessary)	Date:
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Rev	Date	Change	Revised by	Approved
B	14.07.31	New Issue	KJ	



Part Number: D5155-1	Rev: B	- Page 1 -
Description: CO-PILOT COLLECTIVE	Inspection Dwg: D5155	Work Order: 126952

Element name	Nominal	UpperTol	LowerTol	Actual	Deviation	TolBar
1	0.19000	0.03000	-0.03000	0.18872	-0.00128	_*****_
2	2.80000	0.01000	0.00000	2.80150	0.00150	<<---+---
3	4.70000	0.01000	-0.01000	4.69734	-0.00266	___**___
D4	0.350	0.030	-0.030	0.348	-0.002	_*****_
5	0.06000	0.03000	-0.03000	0.06519	0.00519	*****_
D6	0.330	0.030	-0.030	0.325	-0.005	___***_
D7	0.227	0.010	-0.010	0.227	0.000	*****_
D8	1.870	0.010	-0.010	1.870	0.000	*****_
D9	0.125	0.005	-0.001	0.125	0.000	___****_
10	14.00000	0.50000	-0.50000	14.22434	0.22434	*****_
D11	0.350	0.030	-0.030	0.351	0.001	*****_
D12	2.047	0.005	-0.005	2.047	0.000	*****_
13	0.50000	0.03000	-0.03000	0.50092	0.00092	*****_
14	2.16000	0.03000	-0.03000	2.15827	-0.00173	_*****_
15	0.38000	0.03000	-0.03000	0.37523	-0.00477	___***_
16	0.83000	0.03000	-0.03000	0.83035	0.00035	*****_
17	0.16000	0.00400	-0.00100	0.16236	0.00236	*****_
18	0.15000	0.01000	-0.01000	0.14938	-0.00062	_*****_
19	0.86000	0.01000	-0.01000	0.85755	-0.00245	___**___
20	0.50000	0.00600	-0.00100	0.50120	0.00120	___*___
21	0.25400	0.00500	0.00000	0.25425	0.00025	___*****_
22	0.20000	0.03000	-0.03000	0.20107	0.00107	*****_
23	2.50000	0.01000	-0.01000	2.49954	-0.00046	_*****_
24	0.25000	0.03000	-0.03000	0.25245	0.00245	*****_
25	0.30000	0.01000	-0.01000	0.29918	-0.00082	___****_
26	1.90000	0.01000	-0.01000	1.89985	-0.00015	*****_
27	1.50000	0.01000	-0.01000	1.49946	-0.00054	_*****_
28	1.10000	0.01000	-0.01000	1.09791	-0.00209	___***_
29	2.70000	0.03000	-0.03000	2.69853	-0.00147	_*****_

Measured by: Mathieu Lamarche	Audited by: DAS 44 9-89	Preliminary Approval:
Date: 2015-10-7	Date: 15/10/07	Date:

Trial	Control	MCI	AD
1	95	85	75
2	95	85	75
3	95	80	70
4	95	78	68
5	95	75	65

10

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1971) using a Shimadzu 1010 spectrophotometer.

1. *Chlorophyll a* (Chl *a*)



Part Number: D5155-1	Rev: B	- Page 2 -
Description: CO-PILOT COLLECTIVE	Inspection Dwg: D5155	Work Order: 126952

Element name	Nominal	UpperTol	LowerTol	Actual	Deviation	TolBar
30	2.50000	0.01000	-0.01000	2.49847	-0.00153	___***___
31	1.10000	0.01000	-0.01000	1.09776	-0.00224	___**___
D32	1.000	0.030	-0.030	1.000	0.000	*****___
33	0.25000	0.03000	-0.03000	0.25169	0.00169	*****___
34	0.25000	0.03000	-0.03000	0.25246	0.00246	*****___
35	0.62700	0.00800	-0.00100	0.62700	0.00000	___*****_
36	1.17000	0.00500	0.00000	1.17176	0.00176	___*___
37	1.66000	0.01000	-0.01000	1.65863	-0.00137	___****___
38	0.83000	0.01000	-0.01000	0.82937	-0.00063	___****___
39	3.70000	0.03000	-0.03000	3.69835	-0.00165	___****___
40	0.46000	0.03000	-0.03000	0.45436	-0.00564	___***___
41	1.25000	0.03000	-0.03000	1.24936	-0.00064	*****___
42	0.30000	0.03000	-0.03000	0.29948	-0.00052	*****___
D43	0.250	0.030	-0.030	0.250	0.000	*****___
44	1.10000	0.01000	-0.01000	1.09929	-0.00071	___****___
45	0.55000	0.03000	-0.03000	0.54848	-0.00152	___****___
46	0.35000	0.03000	-0.03000	0.34897	-0.00103	___****___
47	0.09000	0.03000	-0.03000	0.06987	-0.02013	___****___
48	0.06050	0.00050	-0.00050	0.06078	0.00028	*****___
49	47.00000	0.50000	-0.50000	46.99156	-0.00844	*****___
50	0.06000	0.03000	-0.03000	0.06120	0.00120	*****___
51	0.13000	0.03000	-0.03000	0.12439	-0.00561	___***___
52	0.10000	0.01000	-0.01000	0.10091	0.00091	*****___

Measured by: Mathieu Lamarche	Audited by: DAS 44 9-89	Preliminary Approval:
Date: 2015-10-7	Date: 18/10/07	Date:

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 3, 1862. It is a very important document, as it contains the President's annual message to Congress. The letter is written in a very formal and dignified style, and it is one of the most important documents in the history of the United States.

2. The second part of the document is a report from the Secretary of the Interior, dated January 3, 1862. It is a very important document, as it contains the Secretary's annual report to the President. The report is written in a very formal and dignified style, and it is one of the most important documents in the history of the United States.

3. The third part of the document is a report from the Secretary of the Treasury, dated January 3, 1862. It is a very important document, as it contains the Secretary's annual report to the President. The report is written in a very formal and dignified style, and it is one of the most important documents in the history of the United States.

4. The fourth part of the document is a report from the Secretary of the War, dated January 3, 1862. It is a very important document, as it contains the Secretary's annual report to the President. The report is written in a very formal and dignified style, and it is one of the most important documents in the history of the United States.

5. The fifth part of the document is a report from the Secretary of the Navy, dated January 3, 1862. It is a very important document, as it contains the Secretary's annual report to the President. The report is written in a very formal and dignified style, and it is one of the most important documents in the history of the United States.

6. The sixth part of the document is a report from the Secretary of the State, dated January 3, 1862. It is a very important document, as it contains the Secretary's annual report to the President. The report is written in a very formal and dignified style, and it is one of the most important documents in the history of the United States.

7. The seventh part of the document is a report from the Secretary of the War, dated January 3, 1862. It is a very important document, as it contains the Secretary's annual report to the President. The report is written in a very formal and dignified style, and it is one of the most important documents in the history of the United States.

8. The eighth part of the document is a report from the Secretary of the Navy, dated January 3, 1862. It is a very important document, as it contains the Secretary's annual report to the President. The report is written in a very formal and dignified style, and it is one of the most important documents in the history of the United States.

9. The ninth part of the document is a report from the Secretary of the State, dated January 3, 1862. It is a very important document, as it contains the Secretary's annual report to the President. The report is written in a very formal and dignified style, and it is one of the most important documents in the history of the United States.

10. The tenth part of the document is a report from the Secretary of the War, dated January 3, 1862. It is a very important document, as it contains the Secretary's annual report to the President. The report is written in a very formal and dignified style, and it is one of the most important documents in the history of the United States.